Domain-specific Market Segmentation

W. Fred van Raaij
Erasmus University, Rotterdam, The Netherlands, and
Theo M.M. Verhallen
Tilburg University,
Tilburg, The Netherlands

Received September 1993
Revised May 1994

Introduction

Since the introduction of the terms "product differentiation" and "market segmentation" by Wendell Smith in 1956[1], marketing researchers recognize differences between groups of consumers to be opportunities in the market. However, as Dickson and Ginter[2] indicate, there is confusion in textbooks and articles about the definition of these terms. In some cases, product differentiation is described as an "alternative" to market segmentation. In other texts, product differentiation is a "complement" to market segmentation. Smith[1] describes product differentiation as "the bending of demand to the will of the supplier". Product differentiation might thus be rather "artificial". Galbraith[3] also takes the latter position and accuses marketing of manipulating consumers.

Market segmentation involves the identification of segmentation variables, followed by segmentation of the market. This leads to market targeting, i.e. an evaluation of the attractiveness of the obtained segments and a selection of the target segment(s). For these target segments, positioning concepts are developed, selected and communicated[4]. The segments that are distinguished must form a sound basis for product, distribution, pricing, and communication strategy. This can only be realized by stable segments of which the buying behaviour can be reliably predicted.

Product differentiation and positioning is the counterpart of market segmentation. Product development and marketing communication can be aimed and focused at specific segments in the market[2]. How then are we to identify viable market segments or types of people as target groups for marketing activities? The main questions addressed in this article concern how fruitful several approaches are in identifying market segments. At which level of abstraction should one identify market segments? How are market segments related to differentiated products and services?

In order to do so, we will first review these approaches to market segmentation. Then the domain-specific segmentation approach, the segmentation methodology and techniques, as well as the evaluation of segmentation outcomes, will be discussed.

European Journal of Marketing, Vol. 28 No. 10, 1994, pp. 49-66.
© MCB University Press, 0309-0566

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487594

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

In market segmentation research, a number of decisions have to be made. We will discuss the major decision points involved in segmentation, such as:

- Which person characteristics or aggregate characteristics are chosen as segmentation variables to categorize people?
- How do we decide on the segmentation method?

We will also address application issues, such as how best to:

- evaluate the outcomes of a segmentation study;
- implement the market segmentation results in marketing policy, in product differentiation and communication policy aimed at one or more market segments.

Segmentation Variables

Social class, for instance, used to be a major segmentation variable[5,6]. As society has become less vertically organized with more buying power across larger layers of society, the social class concept has lost its unique segmentation value. Other demographic variables, such as age, family type, education, often easier to put into operation, are used instead. In addition, as buying power and social class have lost their discriminative power at a brand level, other, more psychological, characteristics such as values and attitudes are being used as a basis for segmentation.

In Table I, the segmentation variables are classified according to their objective versus subjective character. Objective variables are measured or registered often without much disagreement among researchers. They include census data, scanning data and consumer panel data on substitution and brand switching. Subjective variables are mental constructs of consumers, normally measured in surveys and interviews. They include the perceptions, evaluations, lifestyle, attitudes and intentions of consumers.

The second dimension of Table I concerns the level of generality of the variables. At the most general level, stable behavioural patterns and personal characteristics – personality, lifestyle, and values – are the basis for market segmentation. These variables are largely stable and permanent characteristics of consumers. A market segmented according to these variables provides segments that, in principle, apply to many products and services.

At the domain-specific level, variables relate to domains of behaviour. A behavioural domain is defined as a set of behaviours with a common goal or label, such as recreation or eating. Often, substitution and complementarity of behaviours are characteristics of a domain. A domain is not necessarily the same as a product class. In the domain of "recreation", travel may compete with media usage at home. In a market segmented according to domain-specific variables, often a limited number of product classes play a role.

At the brand-specific level, variables pertain to brands, brand usage and loyalty. A segmentation at this level will lead to brand-attribute evaluation segments, relevant to product managers and retailers in these areas. A common

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487595

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

Level of variable	Objective	Subjective
General (behavioural patterns; person characteristics)	Income Age Education Behavioural patterns	General values Lifestyle Personality
Domain-specific (product-class usage)	Situation Frequency of use Substitution behaviour	Opinions Perception Attitude Domain-specific values
Brand-specific (brand-usage)	Brand loyalty (behaviour) Frequency of use actions	Brand loyalty (attitude) Preference Evaluation Purchase intention

Table I.
Classification of Segmentation Variables

segmentation at the brand-specific level is the distinction between new category users, brand loyals, brand switchers, other-brand loyals and non-users[7].

The General Level: Psychographics and Behaviour

The LOV[8], the VALS[9] and the Rokeach[10] values represent approaches to the use of psychographics in advertising and marketing research. Psychographic variables are often applied at the general level. The LOV and Rokeach values use the scores of people on the separate scales to relate to verbal or overt behaviour measures such as brand choice (at the brand-specific level). The VALS represent the typology approach in which score patterns are made per individual. Groups of people with similar value- and lifestyle-score patterns form the types that are being distinguished. These types are then compared with one another on behavioural characteristics (backward segmentation). In the Rokeach approach, instrumental and terminal values are distinguished.

These value approaches provide the overall value orientations of segments of consumers. But missing are the linkages of these values to product characteristics and benefits at the domain-specific level.

These approaches are well known in mainstream psychology and denoted as the personality trait and the personality type approaches, respectively. In personality psychology, a lot of theorizing and research has been devoted to the fruitfulness and predictive power of personality scales, such as the Gordon Profile and the Edwards Personal Preference Schedule[11]. Recently it has been recognized that such personality scales and personality types do not explain behavioural differences very well, except in psychopathological cases.

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487596

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

In personality psychology, the response to the trait/situation controversy is that behaviour is determined by the interaction of both person and situation variables. Person variables are not constant over situations. Person variables may determine the kinds of situations that people choose, or they may be related to how people respond when in situations related to these variables[12, 13]. Thus, person variables may not be constant over product domains. The manifestation of person characteristics may be restricted to certain domains.

The general conviction nowadays is that general personality characteristics are not very well suited to explain specific behavioural differences. This same conclusion was also drawn for the area of consumer behaviour decennia ago by Van Veldhoven[14]. In reviews such as Kassarjian's[15], it is concluded that at most 10 per cent – others even mention 2 to 5 per cent – of behavioural differences, such as differences in brand choice, can be explained on the basis of general personality variables. For elaborate examples of such early studies, see Evans[16] and Koponen[17].

The Brand-specific Level: Loyalty and Intensity

Segmentation at the specific level is especially useful for segmenting customer markets and using databases in direct marketing, both in consumer and business-to-business markets. Often, a sort of pyramid approach is taken[18]. The lower level of the pyramid consists of the total potential market. One level higher are the prospects for a product or for a service to which a product may have a specific appeal. Another level higher are the one-time buyers. Then, the market may be further segmented on the basis of frequency and intensity of purchases. Multi-brand loyal and single-brand loyal customers may be distinguished. At the highest level are the core customers, the heavy buyers. Marketing strategy is to move customers up the pyramid (increase the frequency and intensity of their purchases) and to take measures to retain customers for as long as possible (relationship marketing).

Segmentation at the specific level may thus be at a low aggregation level – in the case of the customer database, even at the individual level. It does not necessarily provide reasons why consumers are attracted or not attracted by the brand.

The Domain-specific Level

In this article, we argue that, in general, the domain-specific level is the most feasible level for segmenting markets, providing the marketer with the most meaningful results. Segments at the general level are unlikely to provide meaningful predictions on product usage, but may be useful for marketing-communication purposes. Segments at the specific level may be useful for product managers, for product improvement, and for database management in direct marketing and targeting communication to brand loyals and non-loyals.

As alternative variables for segmentation, specific attitudes and opinions are suggested. In contemporary attitude theory[19], it is agreed that for a maximum correspondence between a person characteristic and a behavioural

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487597

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

variable both have to be defined in similar elements with regard to time, context and the target at which the behaviour is directed. Often this has been applied in studies to fulfil the need for a very precise description of attitudes and corresponding acts. However, the more defined (and restricted) the context is in which an act (e.g. brand choice) has to be explained, the less attractive it is for a researcher to measure corresponding attitudes. Why not measure behaviour directly then? Some authors[20-22] argue in favour of broadening the scope of the behavioural measure into a behavioural domain or field.

Also in segmentation studies there has been a plea to choose a middle level of generalization – somewhere between general behavioural measures and act-specific measures: the domain-specific segmentation approach. A domain may be described as an area of behaviour that is aimed at the same goal: vacationing, dieting, travelling, etc. Figure 1 depicts this theoretical idea with regard to the relationship between person characteristics and behavioural measures.

Values and attitudes with regard to the behavioural domain will provide a better explanation than general personal values for specific behaviour. Results from a small-scale study may clarify this. In a small-scale study, general personal values were measured as well as the same values held with regard to breakfast (Figure 2). The qualities of breakfast products such as margarine were also assessed.

General values corresponded significantly with domain-specific (breakfast) values, but not with product evaluations. These breakfast evaluations correlated significantly with the specific product evaluations.

It was found, for instance, that housewives scoring high on family security as an important general value, wanted to have an extensive breakfast: the whole family at the table, complete with dishes, teapot and all other accessories. Persons wanting an extensive breakfast rated taste as an important characteristic for margarine. However, family security did not correlate directly with taste importance for margarine. Another example from the same study: the general value of "ambition" correlated highly with a fast breakfast which correlated with the spreadability of margarine. A direct relation between the general value and the specific product evaluation, however, could not be found.

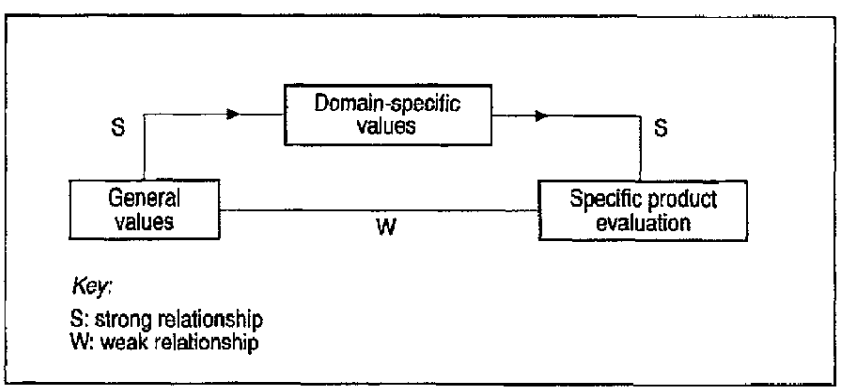

Figure 1.
The Intervening Role of Domain-specific Variables

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487598

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

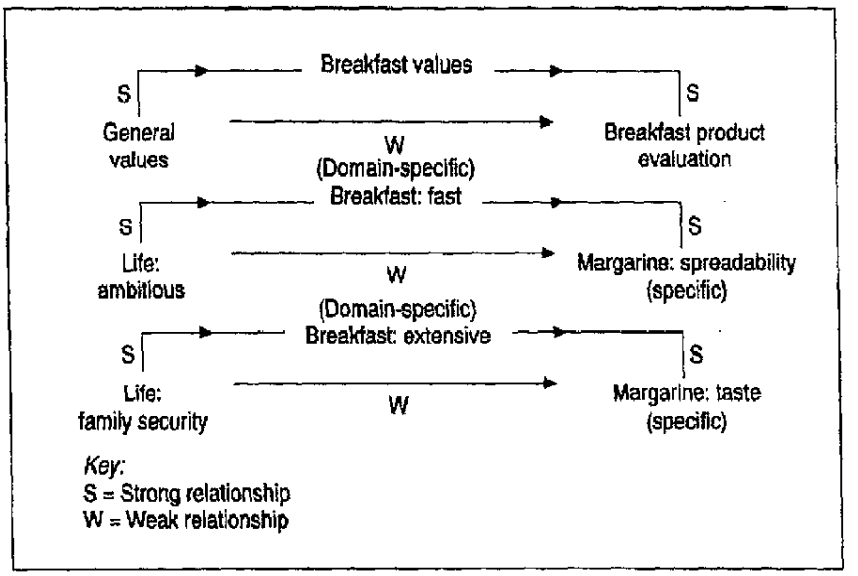

Figure 2.
Breakfast Example

These studies lead to the following conclusions[15]:

- General personal values/typologies do not correlate sufficiently with specific market behaviour. Domain-specific values, however, do.
- General values and life-style types are interesting additional characteristics with which to describe segments (passive variables).

Domains

A domain often involves a consumption situation, e.g. the breakfast situation of Figure 2. In this article, only the actual or anticipated consumption situations are considered as behavioural domains. The consumption situation is often part of the purchase of services. The service is often "consumed" on the spot. Time and place play a dominant role in the evaluation of the service, such as the atmosphere of a restaurant or the friendliness of the personnel.

Breakfast, recreation and body care can all refer to domains of consumption. A domain may thus be a consumption situation involving a variety of complementary products. In the recreation domain, photography, travel and sightseeing constitute related products and services. A domain may also be more strictly related to a product class, e.g. photography in different situations. This is both an opportunity for and a constraint on products. If cheese is perceived as a breakfast product, this is a barrier to promoting cheese as a snack, cheese with dinners or cheese in other usage situations. If photography is perceived as related to recreation and vacation, this is a barrier to promoting photography in other situations, e.g. birthday parties.

Segmentation can thus be based on situations, product-situation and person-situation interactions. See Mischel[12,23,24] for a similar interactionist approach in personality research.

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487599

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

Types of Market Segmentation

The three levels of variables, the general, domain-specific and specific levels can be used for market segmentation (Figure 3). On the demand side we distinguish between consumer evaluations and behaviours.

There are three levels of consumer *evaluation*. At the specific level product attributes are evaluated in terms of favourable/unfavourable, according to the model of Fishbein and Ajzen[19]. Domain-specific values are related to the consequences (benefits) of using products or services. More general than domain-specific values are general values. General values are independent of concrete objects and more stable and permanent than domain-specific values.

Three levels of *behaviour* can be distinguished: single acts, behavioural categories and behavioural patterns. Single acts or actions are specific acts, described in time and space, such as taking a package of Ajax detergent from the shelf or turning the thermostat down. Single acts can normally be observed as they involve body movements.

A behavioural domain is a set of actions which have at least one consequence or outcome in common, e.g. recreation behaviour or energy saving[22]. Behavioural domains cannot be observed directly. They have to be inferred from specific acts. For instance it is not possible to observe consumer energy conservation. Energy-related behaviour can be observed. It depends on the context, the common consequence or goal, and/or the intentions of the person, whether these acts belong to the behavioural category "energy conservation".

Fishbein and Ajzen[19] combine several single acts into a behavioural category simply by counting them. The resulting multiple-act index can include a weighing factor: $M = \Sigma (act_j * weight_j)$. A disadvantage of this method is that single acts are counted irrespective of their intercorrelation, assuming the unidimensionality of the acts.

At the general level, behavioural patterns encompass several behavioural categories with a common denominator. Lifestyle, defined as a set of related behavioural activities, belongs to this level. Behavioural patterns are relatively stable and invariant over time.

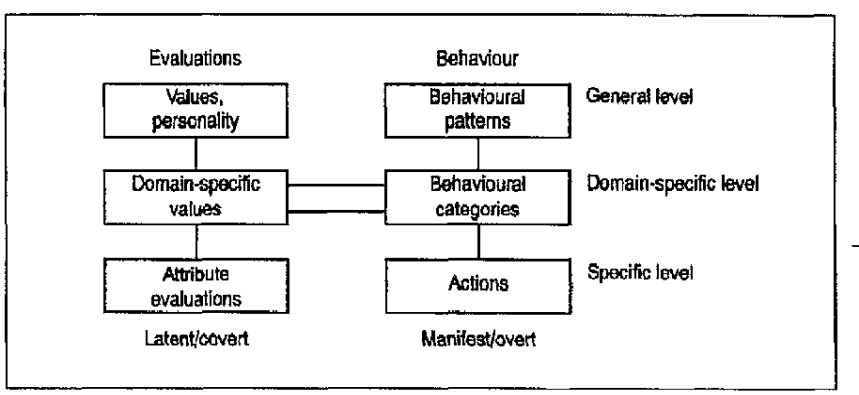

Figure 3. Consumer Characteristics for Market Segmentation (Demand Size)

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487600

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

Segmentation Methods

Three approaches to segmentation can be distinguished: forward, backward and simultaneous segmentation.

In the forward approach or the analysis of consumer response, consumers are assigned to groups on the basis of the similarity in their behavioural response to the supply of goods and services. Subsequently, the differences between the groups are related to general and/or object- and situation-specific consumer characteristics.

In the backward segmentation approach, the analysis starts with consumer characteristics. Here, consumers are assigned to groups by their similarity in one or more consumer characteristics. Subsequently, the differences between the groups are related to behavioural differences. Two types of consumer characteristics are distinguished: general characteristics, such as sex, age, stage in life-cycle, lifestyle or personality; and situation-specific consumer characteristics, such as attitudes, opinions, perceptions and preferences.

In the third approach, the simultaneous analysis of consumer characteristics and responses, consumers are assigned to groups on the basis of the relationship between consumer characteristics and behavioural responses to the supply of goods and services (Figure 4).

In each approach, consumer characteristics are assumed to be relevant to the explanation of consumer responses. Traditionally, the successive approaches, i.e. forward and backward segmentation, were used to specify segments. However, with canonical analysis the relationship between consumer characteristics and consumer responses can be established directly[25].

In Figure 4, an example from such a simultaneous segmentation study is given. van Veen *et al.*[26] used canonical redundancy analysis on vacation behaviours on the one hand and domain-specific (vacation) motives and attitudes on the other. The first canonical variable or factor was "the organized vacation", consisting of behaviours, such as using organized transport – bus, train, or airplane – and of corresponding values and attitudes, such as "one should participate in organized excursions" or "service is important". These behaviour-value combinations proved to be a fruitful basis for vacation segmentation in this study.

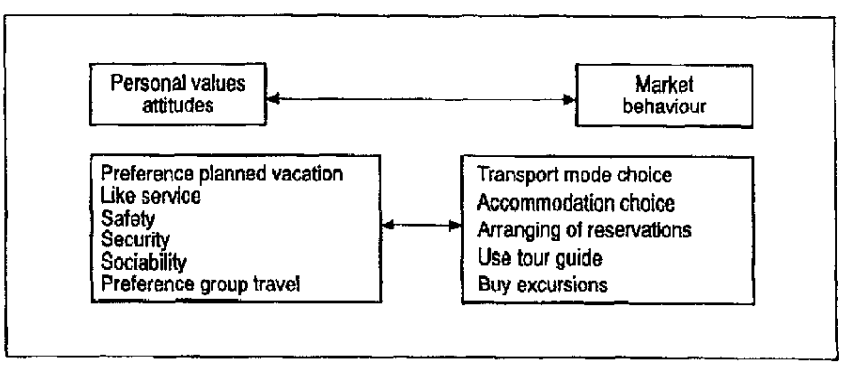

Figure 4. Simultaneous Segmentation (Example: The Organized Vacation)

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487601

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

Segmentation Model and Segmentation Procedure

In the foregoing, the use of domain-specific person characteristics was discussed in relation to segmentation. It is further argued that domain-specific person characteristics and values should be used as *active* segmentation variables in conjunction with domain-specific behavioural measures. This leads to the segmentation model described in Figure 5.

The basis for the proposed segmentation approach is provided by then relating domain-specific values to domain-specific behavioural measures. By including the person characteristics simultaneously with the behavioural measures, the segments found are by definition as predictive as possible in terms of behavioural criteria. Canonical correlation analysis on these variables provides a canonical variates solution. A variate is composed of a predictor part (domain-specific person characteristics) and a criterion part (domain-specific behavioural measures). To interpret the variates, canonical loadings (as opposed to canonical weights) can be used[25].

Grouping persons into segments may be done in several ways. Segments can be found by using a cluster algorithm on either the predictor or the criterion variate scores.

Clustering directly on variate scores, however, does not necessarily preserve the correspondence between person and behavioural characteristics, as computed by canonical analysis. In order to avoid this disadvantage, two alternative approaches, each using assignment rules, can be followed.

The first alternative approach is to define segments by using one canonical variate at a time. Segments are defined on the basis of the highest loading variables at each canonical variate, i.e. on the criterion or predictor part of the variate. Since the variates are bipolar, two possible segments can be defined for each variate. Assuming a canonical correlation solution with significant variates leads to defining six (three-times-two) segments. A consumer belongs to a segment if he or she scores positively (or negatively) on *all* defining

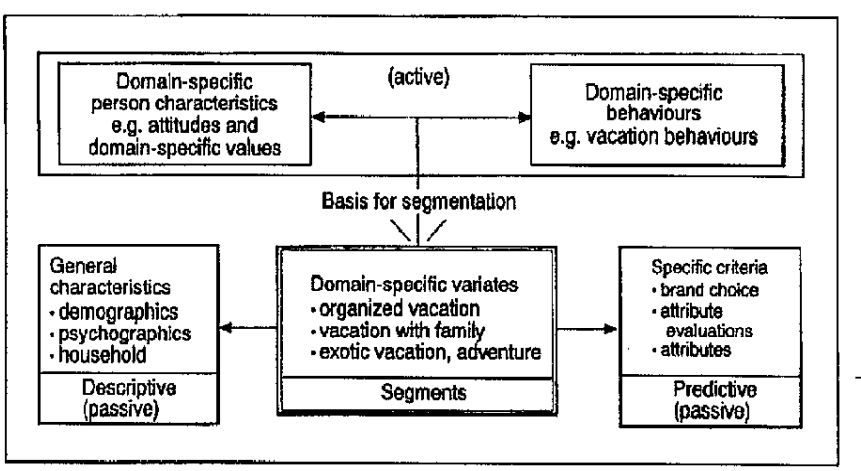

Figure 5.
Domain-specific Segmentation Model

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487602

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

variables. If a person does not score the extreme on a variate, that consumer is not assigned to segments based on this variate.

The second approach differs from the first in assigning consumers to segments based on the variate scores of the combined variates. Suppose a canonical correlation analysis reveals a three-variate solution. For theoretical purposes, the assumption of a consistent relation between the predictor and criterion variate part on each variate is made.

Segments can be defined now on the basis of either a positive or a negative variate score on each variate. Applying this assignment rule, eight possible segments and one rest segment (for consumers who do not meet the assumption of a consistent relation between the predictor and criterion variate part on each variate) can be defined.

By assuming a consistent relation between the predictor and criterion variate part on each variate, not all consumers can be assigned to a segment. In the rest segment will be consumers with only one or two consistent variate relations. If this rest segment becomes too large, a cluster algorithm is used to assign these consumers to one of the other segments. Mean variate scores of each segment are used as starting points in the cluster algorithm.

In defining segments, a choice can be made between assigning consumers to one segment only or allowing overlap between segments. By allowing overlap it is possible to account for a large variety of person and behavioural characteristics with only a small number of segments. Overlapping segments result in a more differentiated and more complete description of the individual consumers.

Constructing a Typology

The segments are formed on the basis of the active domain-specific variables. A further and richer, description of the segments can be obtained by crossing the segments with passive variables. These may be either general or specific variables. The specific variables, e.g. brand choice, are often included for predictive purposes.

In order to construct a typology, the segments based on the domain-specific segmentation approach should be further described and typified by crossing them with all other variables, i.e. with psychographics (LOV, VALS, Rokeach), demographic and socio-economic variables, media exposure, and specific product and brand attitudes or evaluations. A full description of each segment in terms of all these sorts of characteristics is then obtained.

Evaluation Criteria

A number of criteria have to be met in developing feasible segments for marketing policy. The following criteria are mentioned in the literature. See Frank *et al.*[27] for a number of these criteria. These criteria are related to typifying the segments, homogeneity, usefulness and to strategic use in marketing management.

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487603

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

Typifying the Segments

- *Identification:* The differentiation of one segment from other segments should be clear.
- *Measurability:* The identification of segments in terms of differences in individual and household characteristics or other "measurable" characteristics should be possible.

Homogeneity

- *Variation*[28]: There should be heterogeneity between segments in terms of behavioural response.
- *Stability:* The segments should be relatively stable over time, and also, switching of consumers from one segment to another should not be frequent (stability at an individual level).
- *Congruity:* There should be homogeneity within segments in terms of behavioural responses.

Usefulness

- *Accessibility:* Segments should be accessible in terms of the use of media and distribution outlets. Segments are being reached in a "communicative and distributive" manner. Segments should react consistently to communicative, promotional, distributional and product-related stimuli.
- *Substantiality:* Segments should be of sufficient size to enable specific marketing actions.

Strategic Criteria

- *Potentiality:* The segments should have enough potential for marketing objectives, e.g. profitability.
- *Attractiveness:* Segments should be structurally attractive to the producer[29].

These criteria can be met using a proper segmentation methodology inclusive of a retest study to investigate the stability of the segments.

The discriminative power of the segmentation can be assessed by comparing the segments on specific criteria in the market such as brand choice, brand evaluations and brand-attribute importance ratings. This provides the researcher with an independent criterion for the feasibility of the obtained segments.

Construction of Segment-specific Assignment Rules

Segmentation outcomes provide the policy maker with a differentiated view of the consumer market. The segments found may indicate possibilities for new products, product repositioning and better ways to communicate about products. In order to ensure that changes in market structure can be monitored,

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487604

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

it is advisable to construct a device – a short questionnaire – that may easily identify people as belonging to a specific segment. This is the basis on which an assignment rule can be constructed.

For each segment a unique profile can be constructed. By selecting only those variables on which the segment mean scores differ significantly from the overall mean scores (for all segments together), a segment can be typified. The domain-specific behavioural and/or person variables should be the first variables to be taken into account for selection. Using these profiling variables, a segment-specific assignment rule can be developed. Identification of segments based on only a few (domain-specific) variables will be possible. This quick identification offers opportunities to monitor the market in an efficient way. The number of persons in each segment can be followed over time using a panel set-up.

Domain-specific Segmentation: An International Example

Segmenting international consumer markets is usually performed on the basis of consumer characteristics that can be measured and compared relatively easily across countries. Consumer values, such as Rokeach values, are used by Kamakura *et al.*[30] to construct an international consumer typology for four European countries. The comparison of consumer segments across countries assumes the active segmentation variables, the consumer values, to be equivalent across countries. Back and forth translation is the traditional way to ensure an equivalent meaning of the consumer values across countries. The weak point of such an approach, in which only consumer characteristics are used, is the equivalence of criterion behaviour such as brand choice and product usage. The problem, then, is not the construction of international consumer segments but the construction of segments that can be approached internationally by new and target group-focused products and segments that can be reached with international advertising campaigns. Stressing these applications precludes the existence of similarly-behaving segment members in the relevant behaviourial domain.

In an international kitchen study of about 600 households in each of the western and southern European countries included, the cooking and eating behaviours of these households during an eight-day period, as well as their attitudes and values within this domain, were registered[31]. The domain-specific approach advocated in this article had been followed there. The choice of behaviourial variables included: the use of 18 different product groups (e.g. olive oil, vegetables, meat), 17 different applications (e.g. baking, frying), ingredients, plates, brands, type of meal, etc., 21 domain-specific values, and food and cooking attitudes were used. In each of the four lead countries, canonical analyses revealed three significant axes that were similarly interpreted as: interest in cooking, healthy food and variety in food. On the basis of the canonical axes, containing both an attitudinal and a behaviourial part, eight segments plus a residual segment could be defined. These segments include: two different traditional segments, a "culinary" segment, a variety-

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487605

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

seeking segment, a joint family eating segment, a healthy food segment and two modern food segments[32].

At the level of values and attitudes, similar segments can easily be defined and found in different countries. At the level of behaviour, however, there are more difficulties in finding similar behavioural patterns. The traditional segments hold traditional cooking and food values. Technically there is no problem in finding traditional European segments. However on the level of factual food-related behaviour there are vast differences between the separate traditional segments: the traditional Italian housewife spending half a day in the kitchen for meal preparation where home-made pasta is central, whereas the Greek traditional uses *feta*, the Greek cheese, for all kind of applications. In terms of behaviour there are, then, vast differences between "similar" segments.

The modern segments, however, are more similar to one another, both in values and in corresponding behaviour. The rather strict demand for similarity between individuals within and between countries both in consumer values and in behaviour makes a domain-specific approach more demanding but also more suitable for implementation than a traditional approach.

Product Differentiation and Positioning

More attention has been given in this article to market segmentation (the demand side) than to its counterpart (the supply side with product differentiation and positioning). Product development and improvement should be related to the preferences of consumers for homogeneous segments. Only in a market of scarcity can products be developed for "everyone" in the market. In more developed markets products should be adapted to the desires of large and small sub-groups.

In product differentiation and positioning, we distinguish products and product characteristics (Figure 6). The *product* column consists of brands at the specific level, product classes at the domain-specific level, and goods categories at the general level. A product class is a set of products and product types that have the same or similar functions. These products are substitutes for each other. Product classes may also be complementary within a domain. In this sense, detergents and fabric softeners are complementary product classes within the domain of laundry. Often consumers perceive product classes differently from producers. They may also perceive substitutions and complementarities from different producers. From our perspective, the consumer orientation is more relevant. With higher product involvement, consumers often define more precise domains and product classes.

Product characteristics have a column related to a means-end chain. At the specific level physical and psychosocial product attributes give rise to functional and psychosocial consequences or benefits[33, 34]; and benefits give rise to utility. An example may clarify this. An automobile possesses an econometer (a physical attribute). This gives rise to economical driving (a functional consequence or benefit). Economical driving leads to general utilities such as less air pollution, lower use of fuel and the saving of money.

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487606

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

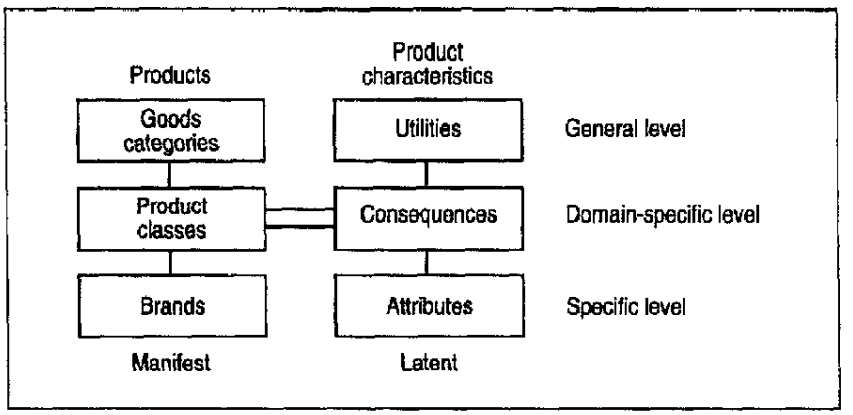

Figure 6. Product Differentiation (Supply Side)

Markets may be segmented on the basis of positive consequences (benefits). Haley[33] gives the example of the toothpaste market. The principal benefits people seek in toothpaste are: nice flavour and product appearance, brightness of teeth, decay prevention and price. Price is, however, not a benefit but a cost (negative consequence) which consumers like to reduce, especially for the price conscious or (as Haley calls it) independent segment. Note that price-consciousness and independence are consumer values. Haley[33] further states that flavour and product appearance are sought by highly self-involved consumers. Brightness of teeth is sought by sociable consumers. Decay prevention is important for the "worriers", people who are concerned about their health.

Brand positioning is also often based on consequences or product benefits. Products and brands are advertised with the emphasis on a specific benefit. The selected benefit may then be "proven" with the relevant technical product attributes or related to utility and values[35]. Brand positioning is a kind of product differentiation in design and communication about the product. It should be related to market segmentation.

The means-end chain of product characteristics resembles a meaning structure "ladder"[36]. In meaning structure analysis, however, attributes lead to consequences, and consequences lead to values. In this case, consequences lead to utility, which is an interaction of product characteristics with values.

In Figures 3 and 6 the three levels correspond to the general, domain-specific and specific levels. In Figure 7, product characteristics and consumer evaluations are combined and a "usage" column is added. Product benefits are the interaction of product consequences with domain-specific values. The meaning structure hierarchy is present as a diagonal in Figure 7 from attributes to benefits to values. Product attributes lead to benefits that are important for consumers with certain values. Benefits are only relevant in a certain usage domain, dependent on consumer values. The economy of an automobile may be relevant only for the private use of the car by a prudent consumer.

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487607

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

Figures 3, 6 and 7 may be combined in Figure 8. The central horizontal axis in Figure 8 is formed by the product consequences, benefits and domain-specific values of consumers. The Figure shows how benefits relate on the one hand to products, brands and product characteristics, and on the other hand to evaluations and behaviours of consumers. The fit between consequences, benefits and domain-specific values should be as close as possible for a successful market targeting.

Discussion

In most markets, there is – from the marketing managerial point of view – an obvious need for market segmentation in order to cope with the large diversity of specific consumer evaluations and behaviours.

The aim of market segmentation is to find homogeneous sub-groups of people with different patterns of domain-specific values and behaviours. These sub-groups should be large enough for a differentiated marketing approach, and should be within reach for advertising and distribution.

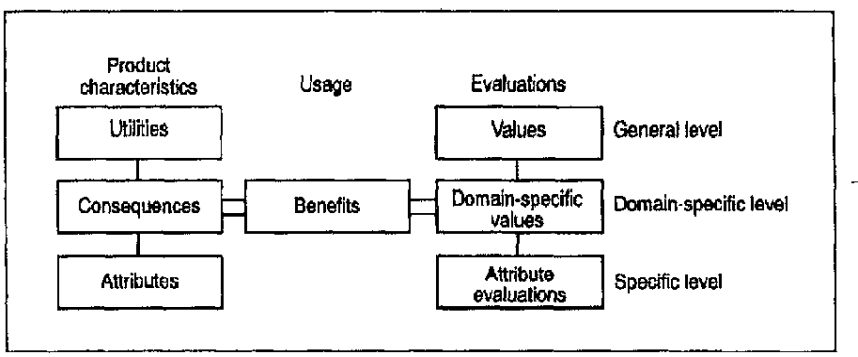

Figure 7. Connection of Products (Supply Side) and Evaluations (Demand Side)

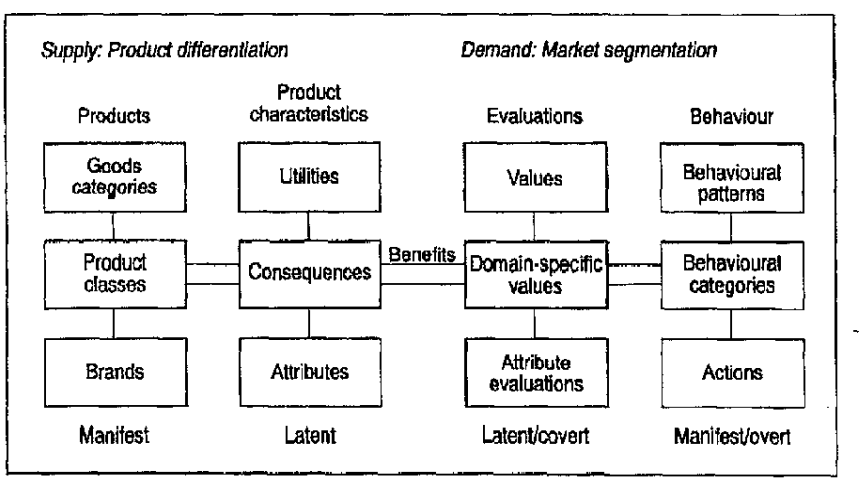

Figure 8. Product Differentiation and Market Segmentation

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487608

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

Too often, an unspecific segmentation approach based on general person characteristics is followed. The predictive value of such an approach and the stability over time of segments constructed on this basis are often not fully assessed.

General psychographics such as LOV, VALS and Rokeach, are not very suitable for predicting specific behaviours and so do not form good active segmentation descriptors of people; they should therefore be used only as passive market segmentation variables.

In the present article an approach to segmentation with the following characteristics has been outlined:

- the usage of domain-specific values and behaviours as active segmentation variables;
- simultaneous segmentation on both domain-specific behavioural measures and domain-specific values, for which, canonical analysis techniques are advocated;
- the usage of general psychographic variables and brand-specific variables as passive, descriptive characteristics to typify persons after the segments have been constructed;
- the construction of an assignment rule for easy identification of persons as members of a segment.

Following this approach to segmentation, an alternative to life-style segmentation is offered. Staying as close as possible to a behavioural domain ensures that strategic marketing decisions are based on specific market knowledge.

References

1. Smith, W.R., "Product Differentiation and Market Segmentation as Alternative Marketing Strategies", *Journal of Marketing*, Vol. 21, 1956, pp. 3-8.
2. Dickson, P.R. and Ginter, J.L., "Market Segmentation, Product Differentiation, and Marketing Strategy", *Journal of Marketing*, Vol. 51, April, 1987, pp. 1-10.
3. Galbraith, J.K., *The New Industrial State*, Penguin, Harmondsworth, 1967.
4. Kotler, P., *Marketing Management. Analysis, Planning, Implementation and Control* (6th ed.), Prentice-Hall, Englewood Cliffs, NJ, 1988.
5. Carman, J.M., *The Application of Social Class in Market Segmentation*, Institute of Business and Economic Research, University of California, Berkeley, CA, 1965.
6. O'Brien, S. and Ford, R., "Can We at Last Say Goodbye to Social Class?", *Journal of the Market Research Society*, Vol. 30, 1988, pp. 289-332.
7. Rossiter, J.R. and Percy, L., *Advertising & Promotion Management*, McGraw-Hill, New York, NY, 1987, Chapter 4.
8. Kahle, L.R. (Ed.), *Social Values and Social Change: Adaptation to Life in America*, Praeger, New York, NY, 1983.
9. Mitchell, A., *Nine American Lifestyles. Who We Are and Where We Are Going*, Macmillan, New York, NY, 1983.
10. Rokeach, M., *The Nature of Human Values*, The Free Press, New York, NY, 1973.

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487609

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

11. Edwards, A.L., *The Measurement of Personality Traits by Scales and Inventories*, Holt, Rinehart & Winston, New York, NY, 1970.
12. Mischel, W., "On the Interface of Cognition and Personality", *American Psychologist*, Vol. 34, 1979, pp. 740-54.
13. Hackett, P.M.W., Foxall, G.R. and Van Raaij, W.F., "Consumers in Retail Environments", in Garling, T. and Golledge, R.G. (Eds), *Behavior and Environment: Psychological and Geographical Approaches*, Elsevier, Amsterdam, 1993, pp. 378-99.
14. Van Veldhoven, G.M., "Persoonlijkheid en Individueel Economisch Gedrag" ("Personality and Individual Economic Behavior"), *Maandschrift Economie*, Vol. 37, 1973, pp. 273-90.
15. Kassarjian, H.H., "Personality and Consumer Behavior: A Review", *Journal of Marketing Research*, Vol. 8, 1971, pp. 409-18.
16. Evans, F.B., "Psychological and Objective Factors in the Prediction of Brand Choice: Ford versus Chevrolet", *Journal of Business*, Vol. 32, 1959, pp. 340-69.
17. Koponen, A., "Personality Characteristics of Purchasers", *Journal of Advertising Research*, Vol. 1, 1960, pp. 6-12.
18. Curry, J., *Customer Marketing*, Management Press, Amsterdam, 1991.
19. Fishbein, M. and Ajzen, I., *Belief, Attitude, Intention and Behavior. An Introduction to Theory and Research*, Addison-Wesley, Reading, MA , 1975.
20. Weigel, R.H. and Newman, L.S., "Increasing Attitude-Behavior Correspondence by Broadening the Scope of the Behavioral Measure", *Journal of Personality and Social Psychology*, Vol. 33, 1976, pp. 793-802.
21. Foxall, G.R., *Consumer Choice*, Macmillan, London, 1983.
22. Verhallen, T.M.M. and Pieters, R.G.M., "Attitude Theory and Behavioral Costs", *Journal of Economic Psychology*, Vol. 5, 1984, pp. 223-49.
23. Mischel, W., *Personality and Assessment*, John Wiley, New York, NY, 1968.
24. Mischel, W., "The Interaction of Person and Situation", in Magnusson, D. and Endler, N.S. (Eds), *Personality at the Crossroads: Current Issues in Interactional Psychology*, Erlbaum, Hillsdale, NJ, 1977, pp. 333-52.
25. Kuylen, A.A.A. and Verhallen, T.M.M., "The Use of Canonical Analysis", *Journal of Economic Psychology*, Vol. 1, 1981, pp. 217-37.
26. van Veen, O., Wasse, M. and Verhallen, T.M.M., "Vacation Market Segmentation. A Domainspecific Value Approach", *Annals of Tourism Research*, Vol. 13, 1986, pp. 37-58.
27. Frank, R.E., Massy, W.F. and Wind, Y., *Market Segmentation*, Prentice-Hall, Englewood Cliffs, NJ, 1972.
28. Engel, J.F., Fiorillo, H.F. and Cayley, M.A., *Market Segmentation. Concepts and Applications*, Holt, Rinehart & Winston, New York, NY, 1972.
29. Porter, M.E., *Competitive Strategy*, Collier Macmillan, New York, NY, 1980.
30. Kamakura, W.A., Novak, T.P., Steenkamp, J-B.E.M. and Verhallen, Th.M.M., "Identifying Pan-European Value Segments with a Clusterwise Rank-Logit Model", *Recherche et Application en Marketing* (forthcoming), 1994.
31. Verhallen, T.M.M., Onzenoort, A.G.L.V. and Barzilay, J., "Typology versus Segmentation: A Domainspecific Approach to Market Segmentation", Proceedings ESOMAR Seminar, Vienna, Austria, 1989, pp. 143-63.
32. Herk, Van H., Verhallen, Th.M.M. and Barzilay, J., "Methodological Issues in International Segmentation", in Bloemer, J., Lemmink, J. and Kasper, J. (Eds), *Marketing: Its Dynamics and Challenges*, EMAC, Maastricht, 1994, pp. 1311-14.
33. Haley, R.I., "Benefit Segmentation: A Decision Oriented Research Tool", *Journal of Marketing*, Vol. 32 No. 3, 1968, pp. 30-5.

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487610

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001

34. Haley, R.I., "Beyond Benefit Segmentation", *Journal of Advertising Research*, Vol. 11 No. 4, 1971, pp. 3-8.

35. Pieters, R.G.M. and Van Raaij, W.F., *Reclamewerking* (The Processes and Effects of Advertising), Stenfert Kroese, Leiden, 1992.

36. Reynolds, T.J. and Gutman, J., "Advertising is Image Management", *Journal of Advertising Research*, Vol. 24, 1984, pp. 27-36.

Further Reading

Dickson, P.R., "Person-Situation: Segmentation's Missing Link", *Journal of Marketing*, Vol. 46, 1982, pp. 56-64.

Doyle, P. and Saunders, J., "Market Segmentation and Positioning in Specialized Industrial Markets", *Journal of Marketing*, Vol. 49, 1985, pp. 24-32.

Lastovicka, J.H., and Bonfield, E.H., "Do Consumers have Brand Attitudes?" *Journal of Economic Psychology*, Vol. 2, 1982, pp. 57-75.

Steenkamp, J.B.E.M. and Wedel, M., "Segmenting Retail Markets on Store Image Using a Consumer-based Methodology", *Journal of Retailing*, Vol. 67, 1991, pp. 300-20.

van Kenhove, P., "Marktstructuuranalyse. Een Integratie van Marktsegmentatie en Marktafbakening. Een Constitutief en Operationeel Onderzoeksopzet" ("Market Structure Analysis. An Integration of Market Segmentation and Market Delimitation. A Constitutive and Operational Research Design"), PhD dissertation, State University of Gent (Gand), 1990.

Van Raaij, W.F., "Consumer Classification based on Behavioural Measures", Proceedings ESOMAR Seminar, Brugge (Belgium), 1982, pp. 177-93.

Reproduced with permission of copyright owner. Further reproduction prohibited.

PM3001487611

Source: https://www.industrydocuments.ucsf.edu/docs/npyj0001